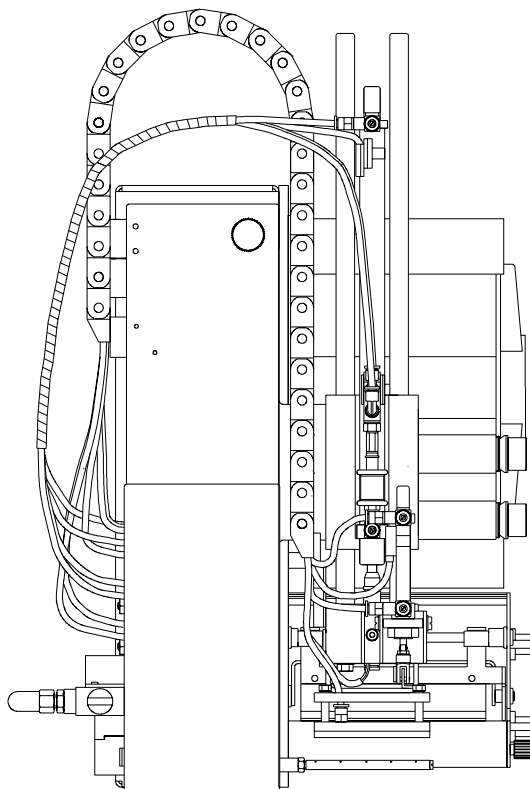# Tamp Applicator with Lift Cylinder
Type 1300

Operating Instructions

Edition 4/03

Tamp Applicator with Lift Cylinder Type 1300

Table of Contents

1. Product Description

Function

The Tamp Applicator with Lift Cylinder Type 1300 is an extra device to use with the **Hermes** label printer for automatically applying the printed label onto the product.
The labels are transferred with a pad, which moves between the starting position and labelling position, by two compressed-air driven pneumatic cylinder.

In the **starting position**, the label is picked up from the printer by the vacuum plate of the pad. Cylinder 1 is situated in its upper end position. This position is recognized by sensor 1. Cylinder 2 is swung to the dispense edge. It is situated in its lower end position. The label is removed from the carrier ribbon directly at the dispense edge of the printer. It is sucked on the pad by a vacuum via drillings at the bottom of the pad. For support, the label is also blown against the pad with an air current coming from a blow tube. The correct transfer of the label is controlled by a vacuum sensor.
After taking the label successfully, the pad is moved by cylinder 2 into the **transition position**, which is confirmed by sensor 3. Following cylinder 1 is pushed forwards and the pad is moved into the **labelling position**. This position is signaled by sensor 3 (the labelling position sensor). Here, the label is stamped onto the product by the pad.
Then the pad is moved back into the transition position. This position is recognized by sensor 1. Next, the pad is swung by cylinder 2 into the starting position.
While the pad is moving back, the vacuum sensor checks whether the label has been removed from the pad.
Specially adapted pads can be used for different label sizes.

The control unit of the applicator is connected with the **Hermes** on its SPI interface using the peripheral connector for cab-applicators at the front side of the printer.

For operation in a networked system the applicator's PLC (programmable logic control) interface with potential free inputs and outputs can be used.

Sensor 1

Cylinder 1

Sensor 3

Cylinder 2

Sensor 2

Pad

Blow Tube
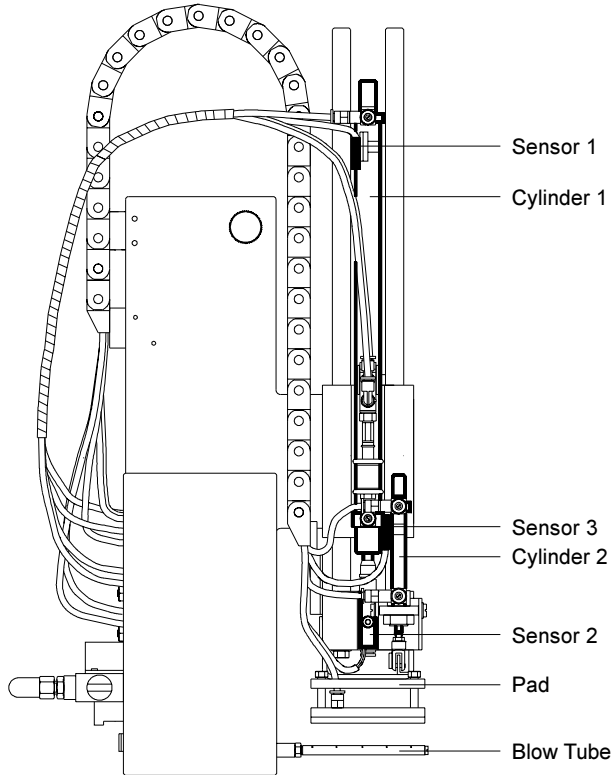
Fig. 1   Tamp Applicator with Lift Cylinder Type 1300

Versions of the Tamp Applicator

Description of the Tamp Applicator

Type   1300(R) - yyy H

Orientation

Lift Height

for Transfer Printer Hermes

Orientation :   dependent on the direction of dispensing
Left orientated or **R**ight orientated
Hublänge :   dependent on the labelling distance
Height of the Lift Cylinder in mm

Positions of the Pad

Cylinder 1

Cylinder 2

Starting Position

Pad

Cylinder 1

Cylinder 2

Transition Position

Pad

Cylinder 1

Labelling Position

Cylinder 2

Pad
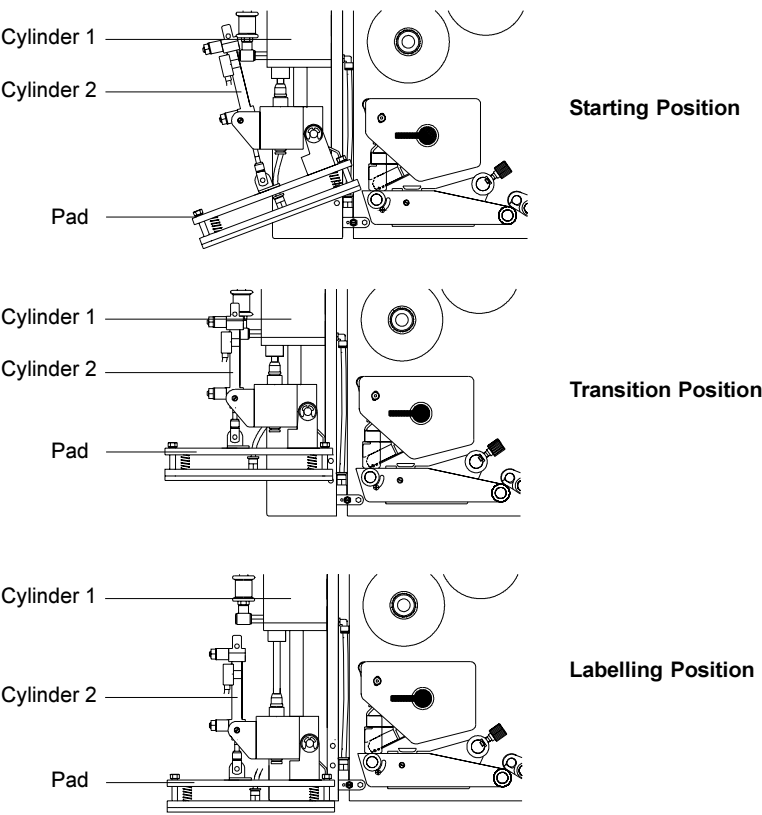
Fig. 2   Positions of the Pad

Technical Data

Label width :   75-116 mm
Label height :   80-200 mm
Air pressure :   4 bis 6 bar

2. Equipment Supplied

1   2   3
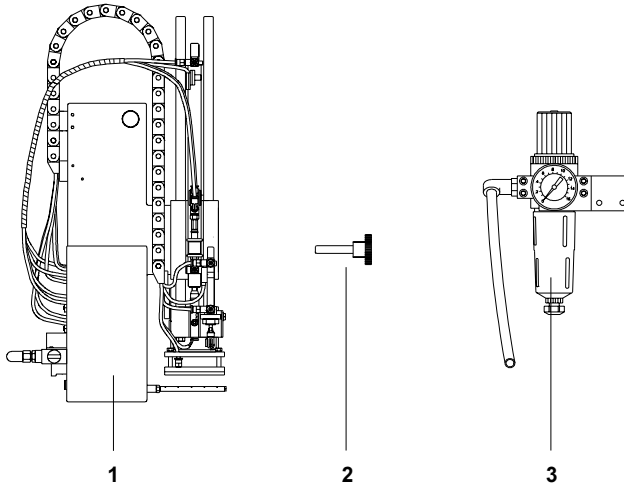
1 - Tamp Applicator with Lift Cylinder

      incl. Pad (as required)
            Blow Tube

2 - Knurled Screw

3 - Service Unit (optional)
      Service Unit
      2 Screws
      2 Washers

Other options on request.

3. Safety Instructions

CAUTION !
Make sure that the Hermes is disconnected from the power supply and the valve at the service unit as well as the shutoff valve at the applicator are closed, while installing the delivered components.

CAUTION !
In operation, moving parts are easily accessible. Therefore, keep long hair, loose clothes, and jewellery distant. Before any manipulations in those areas, close the shutoff valve.

CAUTION !
Do not try to manipulate or repair parts that are not described in the manuals of the tamp applicator or the Hermes.

4. Installation

Installing the Tamp Applicator
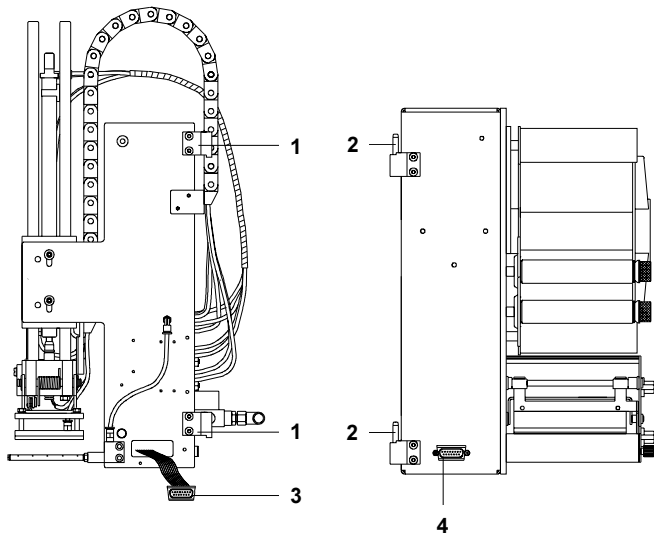
Fig. 4a   Installation of the Tamp Applicator

There are each two hinges (**1, 2**) at the applicator and at the Hermes to mount the applicator at the **Hermes**.

1. Hang the applicator into the hinges (**2**) of the Hermes.

2. Turn the applicator sidewards against the **Hermes** as far as necessary to plug the plug-in connector of the applicator-electronics into the peripheral connector for cab-applicators at the front side of the printer.

3. Contact the plug-in connector (**3**) of the applicator-electronics at the peripheral connector (**4**) of the Hermes.
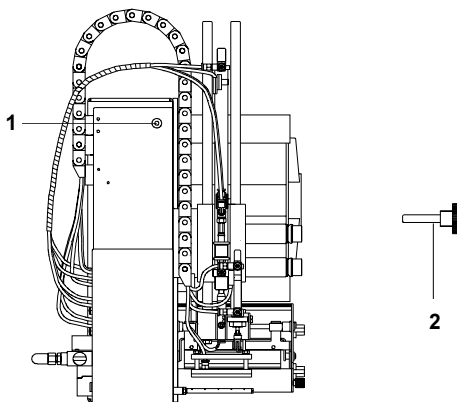
Fig. 4b   Installation of the Tamp Applicator

4. Attach the applicator at the Hermes by screwing the knurled screw (**2**) into the hole (**1**).

Installation of the Service Unit
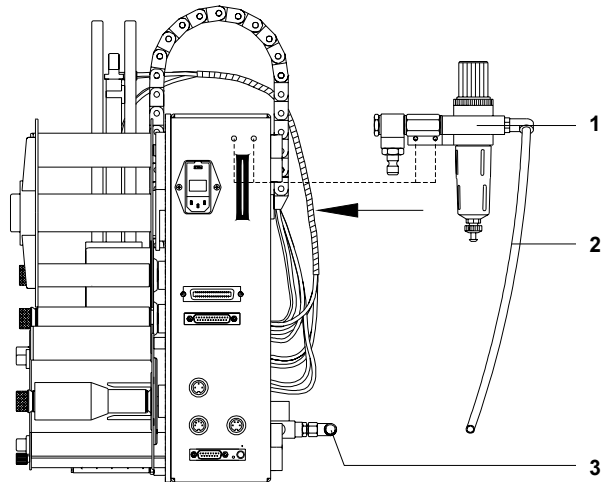
Fig. 4c   Installation of the Service Unit

1. Fasten the service unit (**1**) at the rear of the Hermes using the
    washers and the screws which are contained in the equipment
    supplied.

2. Insert the tube of the service unit (**2**) into the push-in fitting (**3**).
    Insert the tube firmly.

Connections
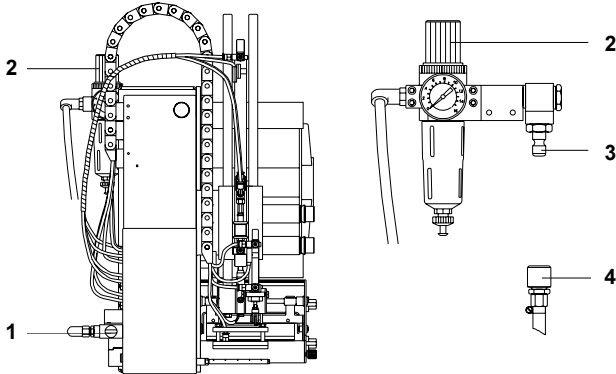
Fig. 4d   Connections

1.   Prepare the connections to the power supply and to the computer as described in the manual of the **Hermes**.

2.   To contact the PLC interface use the 15-pin connector at the left side of the applicator below the shutoff valve (for further details see appendix A).

3.   Make sure that the shutoff valve (**1**) is closed (lever at the valve is turned vertical).

4.   The connector (**3**) for the compressed air supply is located at the service unit. The connector is suitable for a 1/4" coupling plug (**4**).

5.   The air pressure for operating the applicator has to be adjusted at the service unit.
  -   Pull knurled knob (**2**) up.
  -   Turn knob to tune the required operating pressure (4-6 bar).
      By turning knob clockwise the pressure rises.
  -   Push knob down.

6.   Switch on the power supply of the **Hermes**.

7.   Open the shutoff valve (**1**/lever is turned horizontal).

5. Adjustments

All label applicators have passed a previous run at the factory.
It may be useful to do some more fine tuning when the applicator is installed. This refers mainly to those parameters, which are significant as part of a networked system as well as pneumatic settings, which have an influence on the application rate.

5.1. Mechanical Adjustments

Angle of the Pad in the Starting Position
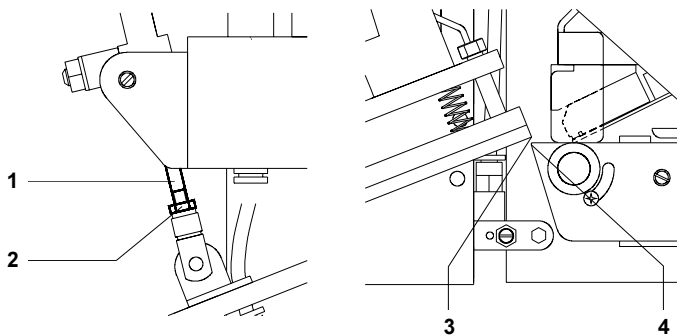
Fig. 5.1a   Adjustment of the Angle of the Pad in the Starting Position

In its upper (starting) position, the pad faces the printer.
The position of the pad unit is best, if in its upper (starting) position the rear edge of the pad (**3**) is located vertically above the dispense edge of the printer (**4**).

The angle of the pad can be altered as follows :

1. Loosen the counter nut (**2**).
2. Move the cylinder rod (**1**).
   Turning upwards - the pad moves away from the dispense edge.
   Turning downwards - the pad moves closer to the dispense edge.
3. Counter the nut.

Adjusting the Level of the Cylinder Unit
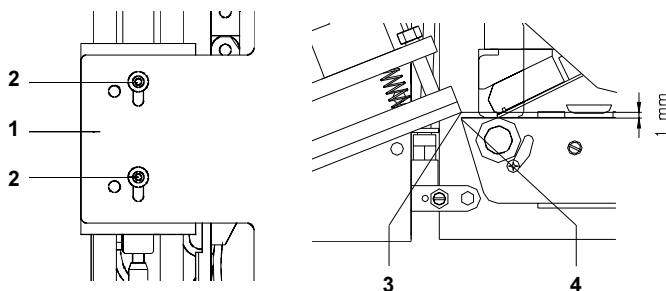
Fig. 5.1b   Adjusting the Level

There are two screws (**2**) at the rear side of the carrier plate (**1**) of the applicator.

1. Loosen the knurled screw at the front side of the applicator and turn the applicator away from the Hermes.
    Now the two screws (**2**) at the rear side of the carrier plate are accessible.

2. For level adjustment, loosen the two screws (**2**) and move the whole unit.
    In the upper (starting) position the pad should be located slightly above the dispense edge of the Hermes. The distance between the pad and the dispense edge of the Hermes is recommended to be around 1 mm.

3. After adjusting tighten the screws.

Tuning of the Blow Tube
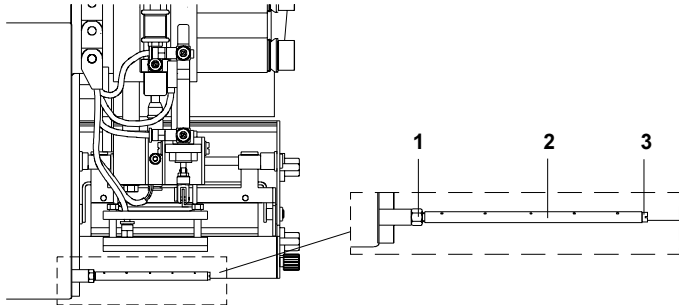
Fig. 5.1c   Tuning the Blow Tube

The blow tube (**2**) for the supporting air can be rotated around its longitudinal axis.
To rotate the blow tube and, consequently, change the direction of the air current, hold slotted screw (**3**) with a screwdriver while loosening counter nut (**1**). Adjust the tube until the air current is aligned with the dispense edge of the printer. Tighten counter nut.

Adjustment of the Labelling Position Sensor
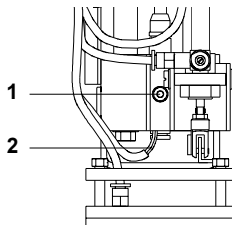
Fig. 5.1d   Adjusting the Labelling Position Sensor

The labelling pressure for stamping the label onto the product can be altered by moving the labelling position sensor.

1.   Loosen the screw (**1**).

2.   Shift the sensor by moving the cable (**2**).
      Shifting the sensor upwards will reduce the labelling pressure, shifting downwards will extend it.

3.   Tighten the screw (**1**).

5.2. Pneumatic Adustments

Control Valves

Fig. 5.2a   Control Valves

To reach the control valves, the casing of the manifold has to be removed. Therefore, loosen the screws at the cover, two on the left and one on the right.
That way, four electric switchable control valves for compressed air become accessible. For manual tuning, the valves can also be operated by integrated keys (**1**).
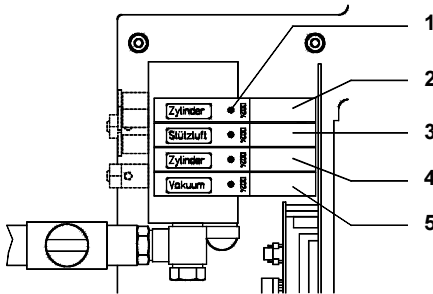
The functions of the valves are as explained below.

'Zylinder' (**2**/cylinder 1) :
Two-way valve to control cylinder 1.
When the valve is switched off the pad is kept respectively moved in the upper end position of cylinder 1. Switching on the valve will move down the pad. Normally the disconnection of the valve is controlled by the signal of the labelling position sensor. When operated manually, there is no controlling by the labelling position sensor. The pad moves to the bottom as far as possible and stays in that position until the key is released.

CAUTION !
Pay attention to cylinder 2 by switching on this valve. Cylinder 2 has to be situated in its upper end position, it means the pad is swung away from the peel-off edge of the printer.
Otherwise the movement downwards of cylinder 1 can cause damages at the pad.

'Stützluft' (**3**/supporting air) :
This valve controls the switch-on of the supporting air at the blow tube.

'Zylinder' (**4**/cylinder 2) :
Two-way valve to control cylinder 2.
Switching on the valve will move the pad into the upper end position of
cylinder 2. The pad is swung away from the peel-off edge of the
printer.

'Vakuum' (**5**/vacuum nozzle) :
This valve operates the vacuum nozzle and, consequently, controls
the vacuum on the pad for picking up the label.

Throttle Valves at the Cylinders
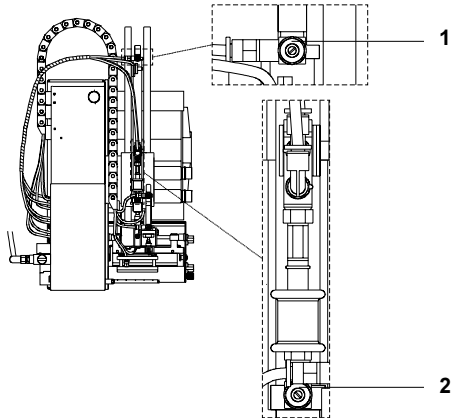
Fig. 5.2b   Throttle Valves at Cylinder 1
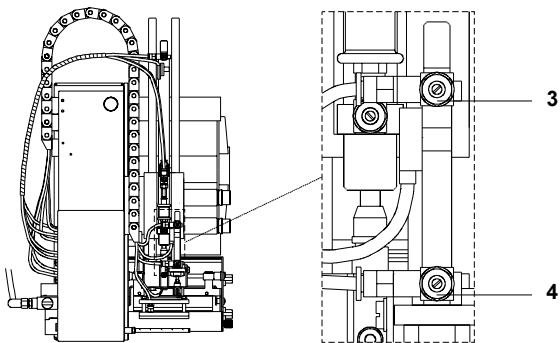
Fig. 5.2c   Throttle Valves at Cylinder 2

The speed of the cylinder movement can be regulated via throttle valves. The setting of those valves determines the speed which the compressed air escapes the container.
The valves are adjustable by turning the throttle screws. Turning clockwise will close the valves.

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Cylinder 1 - Throttle valves **1, 2**
A wider opening of valve (**2**) - accelerates the
downward movement of the pad
A wider opening of valve (**1**) - accelerates the upward
movement of the pad

Cylinder 2 - Throttle valves **3, 4**
A wider opening of valve (**3**) - accelerates the upward
movement of the pad
A wider opening of valve (**4**) - accelerates the
downward movement of the pad

Slide Valve at Cylinder 1

bleed | entlüften

operate | etikettieren

1
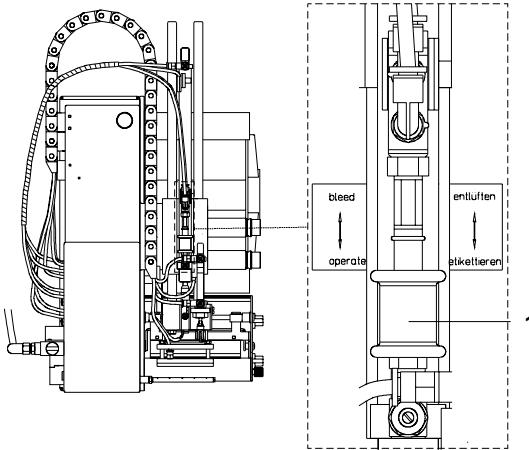
Fig. 5.2d   Slide Valve at Cylinder 1

Cylinder 1 is additional equipped with a slide valve (**1**), which can only be actuated manually.
If the slide valve is closed (operate) cylinder 1 is kept in its upper end position. This fact is special important when the shutoff valve is closed.
The slide valve should only be opened (bleed), if it is necessary to move the pad for service for example cleaning the pad, removing fragments of labels.
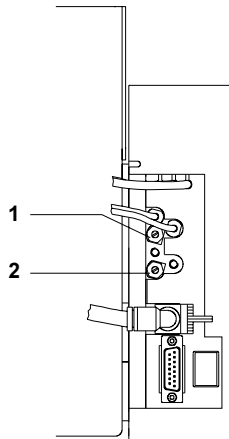
CAUTION !
Pay attention to the pad while opening the slide valve.
It should be swung away from the peel-off edge of the printer.

CAUTION !
The slide valve has always to be closed during operation.
Otherwise cylinder 1 can be moved without control. This fact can cause damages.

Throttle Valves at the Manifold

Fig. 5.2e   Throttle Valves at the Manifold

Throttle valve to regulate the supporting air (**1**)

With this valve the supporting air to blow the label onto the pad can be adjusted.
Turn the throttle screw to adjust the valve. Turning clockwise will close the valve.
The valve has to be tuned in such a way, that the label is blown onto the pad without turning or swinging.

Throttle valve to regulate the vacuum (**2**)

With this valve the vacuum to suck the label onto the pad can be adjusted.
Turn the throttle screw to adjust the valve. Turning clockwise will close the valve.
The vacuum can be adjusted until the label totally sticks on the vacuum plate.

5.3. Selection of the Operation Mode

The tamp applicator can be operated in three different ways referring to the order of printing and labelling of one applying cycle. A mode can be selected through actuating a DIP switch. All operating modes can be adjusted by setting different time delays.
Furthermore, there is a special mode using the pre-dispense key for adjusting, etc.

Operation Mode 'Printing / Labelling'

The print of a label is released by an external start signal (via PLC interface). At the same moment the vacuum on the pad as well as the supporting air from the blow tube are switched on. When the label is printed and picked up from the carrier ribbon, the supporting air is switched off and cylinder 2 is driven in such a way that the pad is swung into the transition position. A sensor signals when the transition position is reached.
Following cylinder 1 is moved downwards. The labelling position sensor recognizes when the labelling position is reached. The vacuum is switched off. The label is placed onto the product by the pad.
After that cylinder 1 is driven to move the pad back into the transition position. A sensor signals the transition position of cylinder 1. Next cylinder 2 is driven to move the pad back into the starting position. Thus, the labelling cycle is finished.

Operation Mode 'Labelling / Printing - Waiting in the Starting Position'

Before starting the mode 'labelling / printing' the printing and picking up of the first label has to be released separately by a special signal (via PLC interface).
The pad with the printed label is in the starting position. The vacuum on the plate is switched on.
By an external start signal cylinder 2 is driven to move the pad into the transition position. A sensor signals when the transition position is reached.
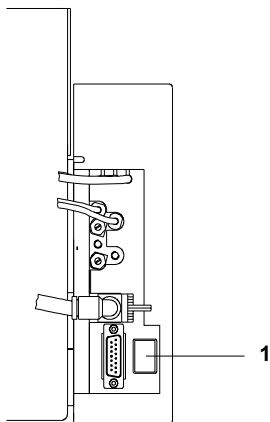
In the following cylinder1 is moved downwards into the labelling position. The labelling position sensor signals the labelling position of cylinder 1. Now the vacuum is switched off and the label is placed onto the product by the pad.
After that cylinder 1 is moved up into the transition position. The upper end position sensor recognizes the upper end position of cylinder 1. Next cylinder 2 is driven to move the pad back into the starting position. Now the next label is printed. At the same moment, the vacuum on the pad as well as the supporting air from the blow tube are switched on. When the label is printed and picked up from the carrier ribbon, the supporting air is switched off. Thus, the labelling cycle is finished.

Operation Mode 'Labelling / Printing - Waiting in the Transition Position'

This mode differs from the above described mode 'Labelling / Printing - Waiting in the Starting Position' in so far as the printed label is immediately moved into the transition position and is being held there. Consequently the next cycle begins by moving down cylinder 1 and pressing the label onto the product.

Function of the Pre-dispense Key

Fig. 5.3a   Pre-dispense Key

By pressing the pre-dispense key (**1**), half cycles of the labelling process can alternately be released, provided that there is a print job.

1(st) half cycle

Pressing the key will release the print of one label. At the same moment the vacuum at the pad as well as the supporting air (blow tube) are switched on. After the label has been printed and picked up by the pad, the supporting air is switched off.

2(nd) half cycle

Pressing the key will drive cylinder 2 to move the pad into the transition position. The sensor signals when the transition position is reached.
Following cylinder 1 is moved downwards. The vacuum is switched off and the label is placed onto the product by the pad.
After that cylinder 1 is driven to move up. The upper end position sensor signals the transition position of cylinder 1. Then, cylinder 2 is driven to move the pad back into the starting position.

If the label is removed from the pad manually after the first half cycle of the labelling process, the print process will be repeated when the pre-dispense key is pressed again.

If there is no print job, only the movements of the pad as described for the second part of the labelling cycle are carried out, pressing the key. The first half cycle of the labelling process can also be released by pressing the ⬚ key on the control panel of the printer. In that case, a blank label is picked up by the pad. That way, the whole labelling process can be simulated by alternately pressing the ⬚ key and the pre-dispense key without the need of a print job or a connection to a computer.

Setting the Operation Mode and Delay Times
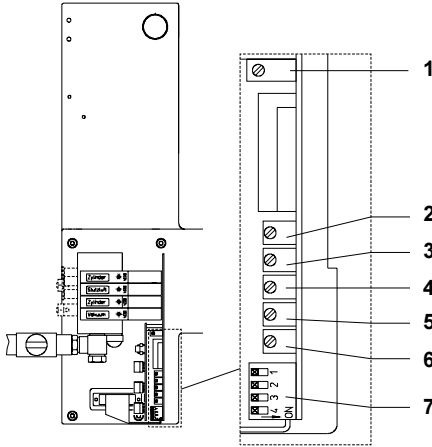
Fig. 5.3b   Potentiometers and DIP-Switches

For best adaptation, the applicator offers several methods to adjust to the whole system and, therefore, to the required needs. After removing the cover of the manifold, 6 potentiometers as well as 4 DIP switches become accessible by which the parameters can be set.

Potentiometers

Potentiometer 1 is sealed. Certain voltage settings are pre-adjusted from the factory and not to be changed by the user.
Potentiometer 2 is preadjusted from the factory, too. The user may not change it.

The potentiometers 3 - 6 offer the adjustment of the labelling process by changing certain time delays. If any one of the settings is changed the actual value is briefly shown in the printer display.

Potentiometer (**3**) : t_{SA} - switch-off delay supporting air 0...2,5 s

Delayed to the process of the label being picked up, the supporting air is switched off.
In many cases, after being picked up by the pad the label edge may still stick on the carrier ribbon. This may affect the accuracy of the label positioning or even cause faults in the labelling. Therefore, switching off the air blow delayed can be useful to separate the label from the carrier ribbon and neatly place the label on the surface of the pad.

Potentiometer (**4**) : s_{SE} - switch-on delay supporting air 0...20 mm

The supporting air from the blow tube is not immediately switched on when the print of the label is released but delayed. The air is switched on, when the label has covered a certain distance s_{SE}.
This delay helps to prevent a turning or swinging at the front of the label and, consequently, avoids faults when the label is being picked up from the printer.
The parameter measures the distance covered by the label before the supporting air is switched on, and it is not depending on the print speed. This way, the position of the label can be determined until the air is switched on.

Potentiometer (**5**) : t_{SP} - locking time 0...2,5 s

All start signals coming in following the first start signal are ignored when they arrive within the locking time t_{SP}.

Potentiometer (**6**) : t_{VS} - start delay 0...2,5 s

The parameter t_{VS} determines the time period between the start signal and the start of the labelling process. With this delay it is possible to release the start of the labelling process sensor controlled, for instance, when a sensor is located on an assembly line in front of the labelling place.

DIP-Switches

With the DIP-switches (**7**) the operation mode as well as the firmware of the applicator can be determined.

DIP Switch	Parameter	ON	OFF
1	Waiting position in operating mode Labelling/Printing (only DIP2 and DIP3 OFF)	Starting Position	Transition Position
2	Applicator	has always to be OFF	
3	Operation mode	Printing / Labelling	Labelling / Printing
4	Save potentiometer settings	no	yes

If switch No. 4 is OFF the setting of the potentiometers is automatically stored in the printer when switched on. Therefore, in case the applicator has been changed (e.g. in case of an accident) the settings are still saved and can be transferred to a replacement (see also Print info display).

Print Info Display

Hermes offers a convenient option for recalling information about the configuration and hardware problems in the printer info display (see also Operator's Manual **Hermes** section 11).

First, press the [ON] key to switch from ONLINE mode into OFFLINE

mode. Next, to recall the printer information desired, press the [PSE]

key to see the first of the five display pages available. Press key repeatedly to view the other pages. When an applicator is installed, this display is extended by another five pages. After the standard pages, the following parameters are shown :

- start delay
- locking time
- switch-off delay supporting air
- blowing time (without meaning)
- switch-on delay supporting air.

When the reviewing is completed, switch back into ONLINE mode by

pressing the [ON] key.

In case the applicator has been changed (e.g. in case of an accident) the stored parameters can be viewed as described above and the new device can be adjusted accordingly. For that purpose the DIP-switch 4 at the new applicator has to be 'ON' during switching on the device the first time.

6. Operation

NOTICE !
Check all external connections before starting to print.

NOTICE !
It is recommended to swing the applicator away from the printer before loading the labels or the transfer ribbon.
Thus it is easier to do the appropriate handlings.

1. Make sure that the media is loaded corresponding to the instructions in the section 'Media Loading' of the Operator's Manual **Hermes**.

2. Attend that the pad is not covered by the label when switching on the device.

CAUTION !
Attend that the slide valve at cylinder 1 is in the 'operate' position by starting the labelling cycle.
Otherwise cylinder 1 can be moved without control. This fact can cause damages.

3. Switch on the power supply of the **Hermes**.

4. Open the shutoff valve.

5. Switch into the present mode of the **Hermes** during programming and set the peel position to remove the labels from the carrier ribbon to 3.5 mm.

NOTICE !

Before starting the first print job press the (FF) **key on the**

printer.

This generates a synchronous running. Remove the processed labels manually. After a few seconds the printer carries out a brief rewind and the edge of the next label is positioned at the print line.
This synchronizing also has to be carried out when the print job has

been interrupted with the (CAN) key.

6. Start the print job.

7. Start the labelling process via PLC interface.

If an error occurs while the applicator is operating, this is shown in the display of the **Hermes** (for types of errors and how to treat them see appendix B).

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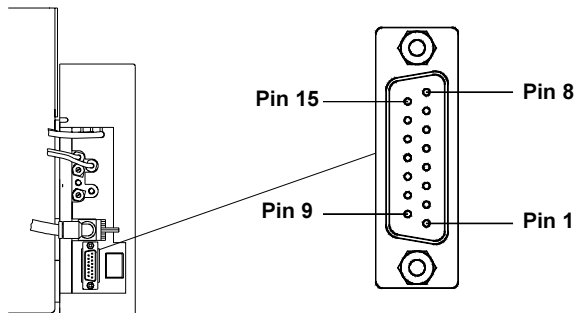
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Appendix A - PLC Interface

For use in a networked system the applicator is equipped with a PLC interface to start and interrupt the labelling process. It also passes on state information as well as error messages of the applicator to the system control.
The interface has a 15 pin SUB-D connector.

Pin Assignment of the PLC Interface

Fig. A-1   Connector of the PLC interface

PIN	Signal	Direction	Function
1	XSTRT	input	start signal
2	XSTP	input	stop signal
3	XDREE	input	print first label
4	XDNB	output	printer not ready
5	XEDG	output	no existing print job
6	XSAA	output	general error message
7	XSOE	output	pad in transition position
8	GND	output	grounding (0V)
9	XSTRTR	(input)	start signal (reverse line)
10	XSTPR	(input)	stop signal (reverse line)
11	XDREER	(input)	print first label (reverse line)
12	XSUE	output	pad in labelling position
13	XETF	output	applicator fault
14	RÜL		reverse line (for all output signals)
15	24P	output	operating voltage +24V, Si T 100mA

Table A-1 Pin Assignment of the PLC Interface

Circuit Diagrams of Input and Output

The **inputs** are optocouplers with a current limiting resistor of 2.4kΩ in the input circuit.
For each signal X[IN] there is a separate reverse line X[IN]R via the plug connector. From that, the following matching pairs of signals result :

PIN1 - XSTRT

PIN9 - XSTRTR

PIN2 - XSTP

PIN10 - XSTPR

PIN3 - XDREE

PIN11 - XDREER
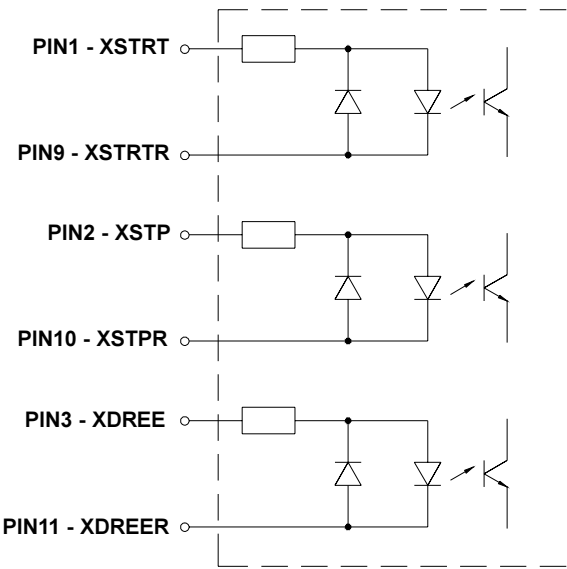
Fig. A-2   Circuit of the Inputs

All **outputs** are realized through solid state relays which outputs are connected among one another one-sided. The joint line is lead to the plug connector as RÜL signal.
The switch function of the outputs is to open or close the contact between the joint line RÜL and the respective output.

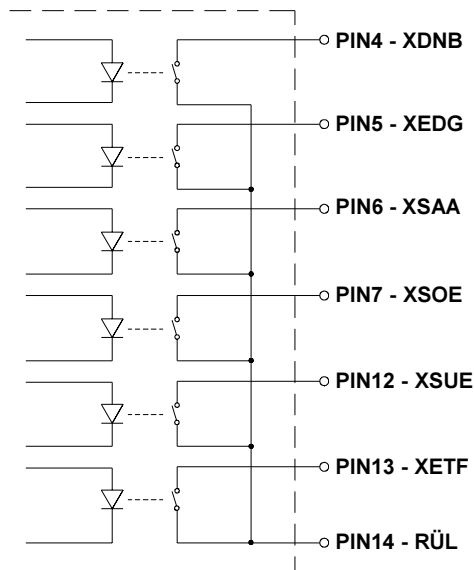Electrical requirements : U_{max} = 42V
I_{max} = 100mA

PIN4 - XDNB

PIN5 - XEDG

PIN6 - XSAA

PIN7 - XSOE

PIN12 - XSUE

PIN13 - XETF

PIN14 - RÜL

Fig. A-3   Circuit of the Outputs

Comments on the Signals

PIN1 - XSTRT - Start signal

The signal will release the start of the labelling process. It is active when a current flows between PIN1 and PIN9.

PIN2 - XSTP - Stop signal

The signal is active when a current flows between PIN2 and PIN10. It can release the following functions :
- to finish off the print of a label and its picking-up by the pad
- to interrupt or to stop the beginning of the labelling process
- to make the pad moving back into the starting position
- to command the disregard of all following signals
- if the stop signal has been activated during the labelling phase, the display will show the message 'Host stop/ error'. (does not show message during print process)

PIN3 - XDREE - Print first label

Within the operation mode 'Labelling / Printing', the current flow between PIN3 and PIN10 activates the print of the first label and its picking-up by the pad.
When the labelling process is started by the XSTRT signal within the operation mode 'Labelling / Printing', the cylinder will start to place the label onto the product at once. Only after that, a new label is printed. Therefore, the provision of the first label has to be assigned by a separate signal.
In the 'Printing / Labelling' mode this signal has no function.

PIN4 - XDNB - Printer not ready

This is an error message of the **Hermes** printer.
The details and type of error can be learnt from the printer display.
('Ribbon out'; 'Paper out'; 'No label')
In this state the contact between PIN4 and PIN14 is opened.
After error correction, the print of the last label will be repeated.

PIN5 - XEDG - No existing print job

State message.
There is no print job currently available.
In this state the contact between PIN5 and PIN14 is opened.

PIN6 - XSAA - General error message

General error message of both, printer and applicator.
This message is shown when one of the two errors either XDNB or
XETF occurs. This signal is important in case that only one error
signal of the applicator can be analysed from the system control.
In this state the contact between PIN6 and PIN14 is opened.

PIN7 - XSOE - Pad in transition position

The signal is active when the pad is in the transition position where
cylinder 1 is in its upper end position.
In this state the contact between PIN7 and PIN14 is opened.

PIN8 - GND - Grounding (0V)

PIN9 - XSTRTR - Reverse line of the start signal XSTRT

PIN10 - XSTPR - Reverse line of the stop signal XSTP

PIN11 - XDREER - Reverse line of the print first label signal XDREE

PIN12 - XSUE - Pad in labelling position

The signal is active when the pad is in its labelling position.
In this state the contact between PIN12 and PIN14 is opened.

PIN13 - XETF - Applicator fault

This is an error message of the applicator.
This message is shown when one of the following errors occurs at the applicator :
- pad has not reached the labelling position within 2s after the movement downwards of cylinder 1
- pad has not reached the transition position within 2s after the movement upwards of cylinder 1
- pad has not reached the transition position within 2s after the movement upwards of cylinder 2
- pad has not leaved the transition position within 2s after the movement downwards of cylinder 2
- a printed label has not been picked up by the pad properly or it fell down during the movement of the cylinder (message of the vacuum sensor)
- the label is still on the vacuum plate of the pad when the cylinder moves back up (message of the vacuum sensor)

The type of fault is shown in the display of the printer.
In this state the contact between PIN13 and PIN14 is opened.
After fault correction, the print of the last label printed before the fault occured will not be repeated.

PIN14 - RÜL - Reverse line (for all output signals)

PIN15 - 24P - Operating voltage +24V, Si T 100mA

There is an operating voltage of 24V available on PIN15 provided from the applicator system.

CAUTION !
You must not apply any external voltage on PIN15 !

The operating voltage on the plug connector allows the use of the applicator without being part of a networked system. The start signal which is required for releasing the labelling process may be caused, for instance, by a suitable foot controlled switch with a 15 pin SUB-D plug.
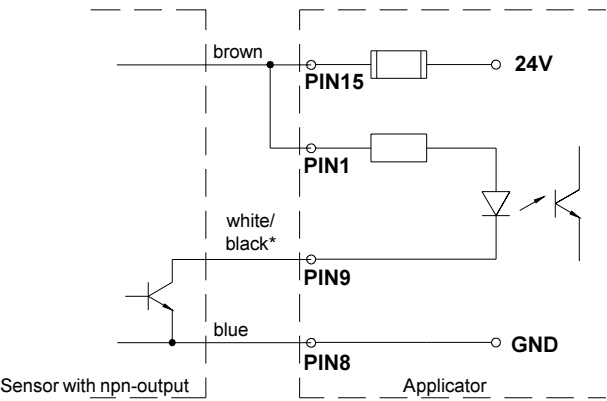
Examples for Circuits to Creating a Start Signal
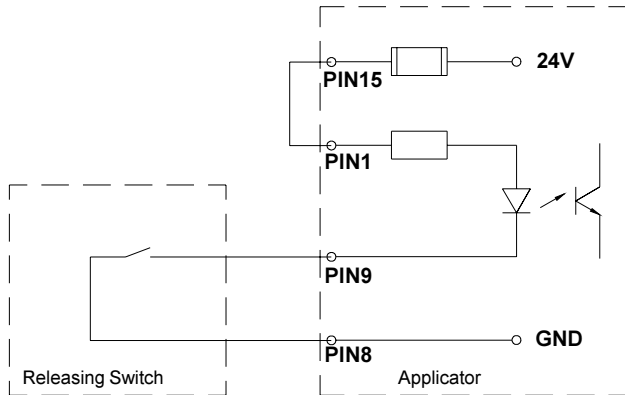
Fig. A-4   Example with releasing switch
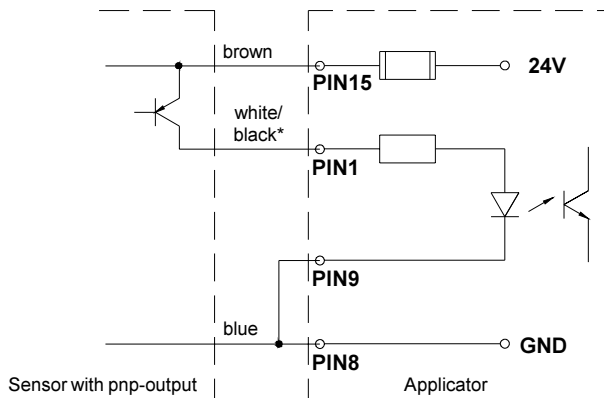
* dependent on the used sensor

Fig. A-5   Example for an optical sensor with pnp-output

* dependent on the used sensor

Fig. A-6   Example for an optical sensor with npn-output

Appendix B - Error Messages

Error Messages of the Printer

Detailed information about printer errors (e.g. 'Paper out', 'Ribbon out', etc.), their causes and correction methods can be found in the Operator's Manual **Hermes** (Appendix C).

NOTICE !
With the installation of an applicator the error treatment expands. This means in particular, that after correcting the error and before

the correction is quit with the ⌨ **key, an additional label feed**

has to be released using the ⌨ **key. This synchronizes the process of printing and labelling. Possibly dispensed blank labels have to be removed manually.**
After quitting the error message the label caused the error will be printed once more.

Error Messages of the Applicator

The following table gives an overview of error messages and their possible cause. It also suggests methods to resolve the problem. After error correction, always quit the error message of the applicator

with the ⌨ key.

To reprint the label where the applicator error occurred, a new print job has to be released.

Error message	Possible cause	Solution
Label not depos.	Label has not been placed onto the product; after cylinder 1 has moved back the label still sticks on the vacuum plate of the pad	Label the product manually
Upper position	1. Pad has not reached the transition position within 2s after the cylinder 1 has moved back 2. Pad has left the transition position unauthorized	Check the pneumatic adjustments (upper throttle valve of cylinder 1); Label the product manually
Host stop / error	Labelling process has been interrupted by an XSTP stop signal via PLC interface	Label the product manually if necessary
Refl. sensor blk.	There has been no change of the switch state at the upper control sensor (at the cylinder) between the start of the labelling process and the signal from the labelling position sensor	Check the sensor (service)
Vac. plate empty	Label has not been picked up properly by the pad; or Label fell off the pad before it could be placed onto the product	If possible, place the 'lost' label onto the product manually; Otherwise stop print job and start again with adapted parameters (e.g. count)
Lower position	1. Pad has not reached the labelling position within 2s after the movement of the cylinder 2. Pad has not reached the transition position within 2s after cylinder 2 has moved up	Check the pneumatic adjustments of the concerned cylinder (esp. the lower throttle valve of cylinder 1 and cylinder 2); Check the applicator for heaviness of its mechanics; Check the labelling position sensor (service); Label the product manually

Table B-1   Error Messages of the Applicator

Appendix C - Function of the LEDs of the Electronics
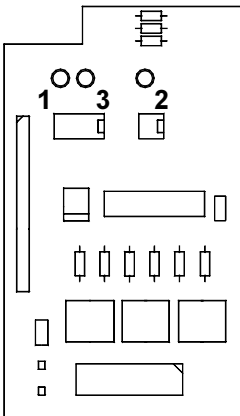
PCB's for left-orientated applicator

PLC Port PCB

Fig. C-1   LED on the PLC port PCB

LED No	Colour	Function	Active state
1	green	PLC signal XSTRT	ON
2	green	PLC signal XSTP	ON
3	green	PLC signal XDREE	ON

Table C-1   LED on the PLC Port PCB

PCB Applicator Control
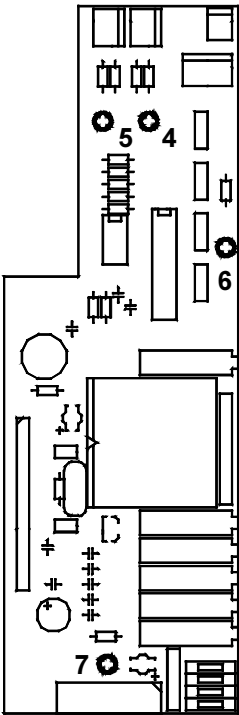
Fig. C-2   LED on the Applicator Control PCB

LED No	Colour	Function	Active state
4	red	Labelling position sensor	OFF
5	red	Upper position sensor	ON
6	yellow	Label on the pad	ON
7	yellow	Operating voltage 5V	ON

Table C-2   LED on the applicator control PCB

PCB Applicator Control for right-orientated applicator
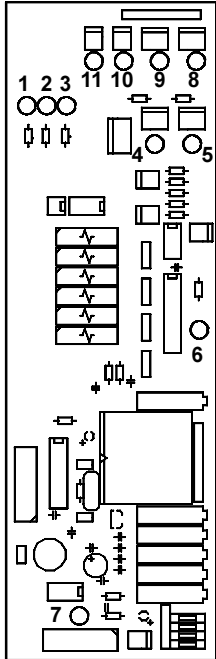
Fig. C-3   LED on the PCB

LED-No.	Colour	Function	Active state
1	green	PLC signal XSTRT	ON
2	green	PLC signal XSTP	ON
3	green	PLC signal XDREE	ON
4	red	Upper position sensor	ON
5	red	Labelling position sensor	ON
6	yellow	Label on the pad	ON
7	yellow	Operating voltage 5V	ON
8	red	no function	
9	red	no function	
10	red	no function	
11	red	no function	

Table C-3   LED on the PCB

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Gesellschaft für Computer-
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Wilhelm-Schickard-Straße 14
D-76131 Karlsruhe

EC-Conformity Declaration

Herewith we declare that the following described machine, from the design and style
and as we sell it, complies with the relevant EC Safety and Health Requirements.
This declaration will lose the validity if there are any changes of the machine or the
purpose without our consent.

Description: Type:
Applicator   **Tamp Applicator**
                                         with Lift Cylinder Type 1300

Applied EC Regulations and Norms:

- EC Machinery Regulations	**98/37/EU**
- Machine Safety	EN 292-2:1991+A1:1995
- EC Low Voltage Regulations	**73/23/EEC**
- Data and Office Machine Safety	EN 60950:1992+A1:1993
	EN 60950/A2:1993+A3:1995
	+A4:1997
- EC Electromagnetic Compatibility Regulations	**89/336/EEC**
- Threshold values for the Interference of Data Machines	EN 55022:1998
- Limits for harmonic current emission	EN 61000-3-2:1995+A1:1998 +A2:1998+A14:2000
- Limits of voltage fluctuation and flicker	EN 61000-3-3:1995
- Immunity characteristics- Limits and methods of measurement	EN 55024:1998

Signature for the producer:

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99610 Sömmerda

Sömmerda, 01.10.01

Erwin Fascher
Managing Director

cab - Produkttechnik GmbH & Co KG